APPENDIX A: ANILCA SECTION 810(A) SUMMARY OF EVALUATIONS AND FINDINGS

I. Introduction

This evaluation and finding was prepared to comply with Title VIII, Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). It evaluates the potential restrictions to subsistence activities that could result from implementation of the backcountry management plan for Denali National Park and Preserve. The *Draft Backcountry Management Plan and Environmental Impact Statement* describes a range of alternatives for consideration.

II. The Evaluation Process

Section 810(a) of ANILCA states:

"In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . the head of the Federal agency . . . over such lands . . . shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency:

1. gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to Section 805;

2. gives notice of, and holds, a hearing in the vicinity of the area involved; and

3. determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity would involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps would be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions."

ANILCA created new units and additions to existing units of the national park system in Alaska. Denali National Park and Preserve additions were created by ANILCA Section 202(3)(a) for the purposes of:

"The park additions and preserve shall be managed for the following purposes, among others: To protect and interpret the entire mountain massif, and additional scenic mountain peaks and formations; and to protect habitat for, and populations of fish and wildlife, including but not limited to, brown/grizzly bears, moose, caribou, Dall sheep, wolves, swans and other waterfowl; and to provide continued opportunities including reasonable access, for mountain climbing, mountaineering, and other wilderness recreational activities."

Subsistence is an allowed use in the ANILCA additions to Denali National Park and Preserve (Sec. 202(3)(a)).
The potential for significant restriction must be evaluated for the proposed action's effect upon " . . . subsistence uses and needs, the availability of other lands for the purposes sought to be achieved and other alternatives which would reduce or eliminate the use." (Sec. 810(a))

III. Proposed Action on Federal Lands

The "Description of Alternatives" section of the *Draft Backcountry Management Plan and Environmental Impact Statement* describes in detail the alternatives for consideration. Following is a brief summary of each.

Alternative A: No Action

Current and projected conditions under this alternative provide a baseline for evaluating the changes and impacts of the other action alternatives. The National Park Service would continue the present management direction, guided by the 1986 *General Management Plan*, the 1997 *Entrance Area and Road Corridor Development Concept Plan*, the 1997 *South Side Denali Development Concept Plan*, the 1997 *Strategic Plan*, and backcountry management plans from 1976 and 1982. Recreational use and access patterns would continue to develop, and the agency would respond as necessary on a case-by-case basis. No new services or facilities would be developed to meet increased levels of use in the backcountry, except for those identified in the entrance area or south side plans.

This alternative represents "no action" on this plan. It does not imply that the National Park Service would take no further management action concerning the park's backcountry. It places the National Park Service in a reactive role, responding to resource damage and user conflicts as issues arise. For all activities, the National Park Service would respond to changing use patterns as necessary to protect park resources, visitor safety, and visitor experience.

Alternative B

This alternative would emphasize wilderness resource values (including solitude and natural sounds) and opportunities for self-reliant, non-motorized recreation that depend on the wilderness character of the resource. Denali would be distinct from surrounding lands, with a high degree of resource protection, especially in the Old Park.

Under this alternative, some uses would be reduced or managed for greater dispersal to enhance resource protection. While some new, approved uses could occur, services would be minimized to provide self-reliant experiences. This alternative calls for protecting the wilderness character of the park and preserve by requiring Congressional action on wilderness designation before expanding motorized access.

Airplane landings would not exceed current levels in some parts of the park. A permit would be required for all overnight recreation and quotas would eventually be set for each park unit. The national park additions and preserve would be closed to snowmobiles except for access to traditional activities, such as those mentioned in the Senate report for ANILCA (such as hunting, fishing, berry-picking), until after Congress acts on wilderness designations. After Congress makes wilderness designations, areas not in designated wilderness could be considered for additional, dispersed snowmobile access by permit (see definition of Dispersed Use area under Snowmobiles in Alternatives C, D, or E).

No new types of commercial use would be allowed. Research activities would be limited.

Alternative C

This alternative would emphasize highly dispersed recreational uses that are consistent with wilderness values and opportunities for solitude. It would allow for both motorized and non-motorized recreational activities, but would limit growth or otherwise manage use levels to provide a quality visitor experience and protect park resources. Under this alternative, Denali would be distinct from surrounding lands that would have higher levels of recreational uses.

Airplane landings would slightly exceed current levels in some parts of the park. The park additions and preserve would be open to snowmobile use for subsistence activities. Dispersed use of snowmobiles for access to wilderness recreation would be allowed in some parts of the park additions and preserve. Corridors would be designated for higher levels of use.

A limited number of new guided activities would be developed. Research activities would increase slightly over current levels. The backcountry registration system for overnight use would be applied to all units.

Alternative D

The National Park Service would provide for expanded recreational opportunities in many areas of the park and preserve for activities that are particularly well-suited to the unique character of Denali. When current use levels match the management vision for a particular unit, levels of use

would be capped. Patterns and types of use would be somewhat similar to current conditions, but increases in levels of use would be noticeable at several locations.

This, the preferred alternative, would consider Denali National Park and Preserve in a regional context and provide for wilderness experiences that may not always be available on adjacent lands.

Airplane landings would exceed current levels in many parts of the park. The park additions and preserve would be open to snowmobile use for subsistence activities. Dispersed use of snowmobiles for access to wilderness recreation would be allowed in most of the park additions and preserve. Corridors would be designated for higher levels of use.

New types of commercial activities could be allowed in some places. The two hunting guide areas would be expanded to encompass the entire southwest preserve. Research activities would increase above current levels. The backcountry registration system for overnight use would be applied to all units.

Alternative E

This alternative would emphasize expanded visitor services, additional facilities, and increased motorized access for backcountry users. A variety of uses would be accommodated throughout the park, and new forms and levels of recreational uses would be allowed in the park additions and preserve, while protecting resources. The experiences at Denali would more resemble those associated with surrounding lands.

New facilities would be added in the entrance area and on the south side. There would be some expansion of existing uses in the Old Park, with modest expansion of uses in the park additions and preserve. There would be minimal reductions or redistribution of existing uses even in congested areas. This alternative would allow additional types of use not presently occurring but consistent with laws, regulations, and management policies. As types and levels of use increase, so too would administrative presence.

There would be increased airplane landings. The park additions and preserve would be open to snowmobile use for subsistence activities. Dispersed use of snowmobiles for access to wilderness recreation would be allowed in most of the park additions and preserve. Corridors would be designated for higher levels of use in many areas.

New types of commercial activities could be allowed. Three hunting guide areas would encompass the entire southwest preserve. An additional hunting guide area would be added to the southern part of the northwest preserve. The backcountry registration system for overnight use would be applied to all units.

IV. Affected Environment

Introduction

The backcountry of Denali National Park and Preserve includes the entire park except the development sub-zones delineated in the 1997 *Entrance Area and Road Corridor Development Concept Plan*. For some topics the backcountry management plan includes uses even in the development sub-zones, but proposed actions are consistent with the *Entrance Area and Road Corridor Development Concept Plan* and the *South Side Denali Development Concept Plan*. The study area includes designated, proposed, potential, recommended, and suitable wilderness, but the plan does not make recommendations for federally-designated Wilderness.

Park Environment

Denali National Park and Preserve is located in the interior of Alaska and is dominated by an east to west line of towering, glaciated mountains known as the Alaska Range. The range rises abruptly from lowlands of 500 to 2,000 feet in elevation to the pinnacle of Mount McKinley, North America's highest mountain, at 20,320 feet. The range is perpetually snowclad above approximately 7,000 feet

on the north and 6,000 feet on the south. Glaciers are numerous and tend to be larger and longer on the south side of the range than on the north.

Moisture from the Gulf of Alaska is blocked by the Alaska Range, causing a continental climate to the north of the range and more of a maritime climate to the south. Moisture-laden air from the south results in greater levels of precipitation on the southern flanks of the range. The average annual precipitation at park headquarters is 15 inches, while at some higher elevations in the park the total precipitation exceeds 80 inches and snowfall exceeds 400 inches. Normal snowpack throughout the region averages between 20 and 40 inches.

Vegetative cover in Denali is typical of interior Alaska taiga. Lowland floodplains are dominated by dense, deciduous or coniferous forest, or by a mixed forest of balsam poplar and white spruce. Upland forests tend to be more open with mixed or continuous stands of black spruce, white spruce, or aspen. Upland forests give way to shrub communities at elevations above approximately 2,400 feet. Glacial rivers flowing from the Alaska Range create broad floodplains that are sparsely vegetated. Tall shrub communities of willow and alder grow on moist slopes and along drainages, and low shrub communities of dwarf birch and willow grow at higher elevations or on dry slopes. Alpine tundra, composed of dryas and dwarf willow shrub, mat and cushion species, or grass and sedge mixes, grows on slopes and ridges to about 6,000 feet. More than 650 species of flowering plants inhabit the slopes and valleys of the park.

The original Mount McKinley National Park was established in 1917 primarily as a refuge for large mammals. In 1980, ANILCA enlarged the Old Park to more than 6 million acres and re-designated the area as Denali National Park and Preserve. The protected subarctic ecosystem of Denali provides habitat for 30 species of mammals, at least 152 species of breeding birds, 16 species of fish (twelve resident species and four anadromous Pacific salmon species), and 1 amphibian. The American peregine falcon (*Falco peregrinus anatum*), the subspecies that nests in the Denali region, was formerly listed as an endangered species under the Endangered Species Act but was delisted as of August 25, 1999 (64 FR 46542). No federally designated threatened or endangered species are known to occur within Denali National Park and Preserve (see appendix E, consultation letter from the U.S. Fish and Wildlife Service).

About 100 archeological sites are recorded within Denali National Park and Preserve. Archeological investigations conducted within and immediately adjacent to the park strongly suggest that sites dating from the Paleoarctic tradition (10,000 years before present) through the Protohistoric period (200 years before present) exist within the park. Excavations at the Dry Creek site, situated near the northeastern boundary of the park, have yielded one of Alaska's earliest dates, 11,000 years before present (BP). The Carlo Creek site, situated along the Nenana River on the eastern boundary of the park, is dated at approximately 8,000 BP. These sites may depict tool technologies and subsistence patterns representing the earliest peopling of North America by means of the Bering Land Bridge.

The Denali area was used historically by several Athabaskan Indian groups. The Ahtna people of Cantwell arrived from the east, the Tanana people came into the area from the north traveling up the Nenana and Toklat Rivers, and the Koyukon people who lived at Lake Minchumina ascended the McKinley, Foraker, and Herron Rivers. The Upper Kuskokwim people who still live in Nikolai and Telida approached the park from the west, and the Dena'ina people approached the park from the south. Subsistence activities included large mammal hunting, fishing, and small game trapping.

A more comprehensive description of existing conditions can be found in the affected environment section of the *Draft Backcountry Management Plan and Environmental Impact Statement*.

V. Subsistence Uses and Needs Evaluation

Background Information

The 1980 additions to Denali National Park and Preserve are open to subsistence uses in accordance

with Section 202 (3)(a) of ANILCA. Lands within the former Mount McKinley National Park are closed to subsistence activities.

Denali National Park and Preserve has a total of about 320 eligible local rural residents who qualify for subsistence use of park and preserve resources. Denali's subsistence users primarily reside in the

communities of Cantwell, Minchumina, Nikolai, and Telida. Other local rural residents who do not live in these designated resident zone communities, but who have customarily and traditionally engaged in subsistence activities within the park, may continue to do so pursuant to a subsistence permit issued by the park superintendent. Individuals from McKinley Village, Nenana, Healy, and Tanana have received subsistence use permits.

Areas receiving the most extensive subsistence use activities are the northern park and preserve region near Lake Minchumina, and the southeastern park region near Cantwell. Primary subsistence resources harvested for the southeastern region are moose, caribou, bear and fish, with a limited number of households engaging in trapping of furbearers. Cantwell area subsistence users primarily use park lands in the Windy Creek, lower Cantwell Creek, and Bull River drainages. In the northern region, moose, fish, and furbearers are the major resources harvested, with trapping being a significant subsistence use activity. In the northern region, traplines extend throughout the ANILCA park and preserve additions up to the boundaries of the former Mt. McKinley National Park.

Overall, Denali's main subsistence species are moose, caribou, ptarmigan, spruce grouse, hare, and a few species of freshwater fish. Large mammals account for 70% of the resources used and fish account for 21%. Marten, mink, red fox, wolf, lynx, weasel, wolverine, land otter, beaver, muskrat, and coyote are important fur animal resources.

The National Park Service recognizes that patterns of subsistence use vary from time to time and from place to place depending on the availability of wildlife and other renewable natural resources. A subsistence harvest in a given year may vary considerably from previous years because of such factors as weather, surface snow conditions for traveling, wildlife migration patterns, natural population cycles, and wildlife conservation practices of leaving a trapline fallow periodically.

Potential Impacts to Subsistence Users

For several years, subsistence users have expressed concerns about the impacts and conflicts of increasing recreational use, especially snowmobiles, on subsistence resources and subsistence activities. Members of Denali's Subsistence Resource Commission have specifically expressed concerns regarding the effects of increasing levels of snowmobile use in the Broad Pass/Cantwell area upon moose, furbearers, and ptarmigan populations and their distributions (Denali Subsistence Resource Commission Meeting Minutes, April 30, 2001; April 29, 1996; August 9, 1996; and June 28, 1993). Concerns about the impacts of increasing recreational uses were also mentioned by Lake Minchumina area residents during public scoping (see also Letter from Collins, 3/3/01).

In the last five years, snowmobile use has expanded dramatically in and adjacent to the southeastern areas of the park, particularly in the area near Cantwell and Broad Pass. Along with increasing popularity for snowmobiling have come dramatic improvements in snowmobile technology. Because of the increased reliability, power and flotation ability of the newer snowmobiles, snowmobilers have been accessing more distant areas and operating in significantly steeper and higher terrain than in past years.

Open habitat, mountain slopes, and reasonably good snow deposition in the Broad Pass area have attracted increasing numbers of snowmobilers from areas of the state accessible to the Parks Highway. Snowmobilers ride in the park additions, which are open to snowmobiling and subsistence uses.

As the range of recreational snowmobilers and subsistence users overlaps, the potential for conflict between these user groups increases. Snowmobile users can interfere with subsistence traplines, displace wildlife, and create paths that encourage animals to travel farther from places where subsistence activities typically occur.

Increases in types and levels of recreation have the potential to interfere with subsistence. As popular places become crowded, it is expected that use will disperse into more remote or infrequently-used places. Potential restrictions to subsistence may occur if visitors frequent areas used for subsistence. Visitors, especially those who travel via motorized means, may disturb wildlife and interfere with subsistence users who are hunting or scouting game.

Sport hunting can also interfere with subsistence as subsistence users would have to compete with sport hunters for game.

Evaluation Criteria

To determine the potential impacts of the alternatives on existing subsistence activities, three evaluation criteria were analyzed relative to existing subsistence resources:

1. The potential to reduce important subsistence fish and wildlife populations by (a) reductions in number, (b) redistribution of subsistence resources, or (c) habitat losses;
2. What effect the action might have on subsistence fisher or hunter access;
3. The potential for the action to increase fisher or hunter competition for subsistence resources.

1. The potential to reduce populations

(a) Reduction in Numbers:

Alternatives A-C
Actions in these alternatives are not expected to reduce numbers of wildlife.

Alternative D (Preferred Alternative)

Expanding the hunting guide area in the southwest preserve has the potential to reduce wildlife populations as animals in this area could be shot; however, geographic and temporal limitations would prevent a significant restriction to subsistence resources.

Alternative E

Expanding the hunting guide area in the southwest and northwest preserve has the potential to reduce wildlife populations as animals in these areas could be shot; however, geographic and temporal limitations would prevent a significant restriction to subsistence resources.

(b) Redistribution of Resources:

Alternative A (no action)

Increases in recreational activities in subsistence use areas have the potential to redistribute wildlife populations. Use levels among a variety of activities are expected to increase, especially near access points and at destinations that are already popular. Visitors engaged in recreational activities have the potential to harass or frighten wildlife. In addition to the mere presence of people, human-generated noise, and noise from machines, such as airplanes and snowmobiles, could cause wildlife to move away from visitors. As popular areas become crowded, visitor use is expected to disperse to other areas of the park, which could force wildlife to vacate those areas.

For example, wildlife may be frightened by snowmobiles in the Broad Pass area south of Cantwell, along the Stampede corridor, in the southwest preserve, and in the Tokositna and Lower Ruth areas, and may expend valuable energy fleeing from them. Potential adverse impacts on wildlife most likely would occur during mid-to-late winter, when wildlife is likely to be in a nutritionally-stressed condition. Some dispersion is also possible in the northwest preserve as wildlife could be frightened by recreational motorboat and snowmobile use. This scenario would be likely in alternative A where park staff would have little ability to educate visitors about wildlife before visitors go into the backcountry.

Subsistence users in the Cantwell area have expressed concern about increasing snowmobile use in the Broad Pass area, as noted above. Subsistence users in the northwest preserve and adjacent park additions have also expressed concerns about motorized use. Additional recreational use involving snowmobiles and motorboats in subsistence use areas, such as along Birch Creek, could result in displacement of furbeareres and moose, cabin vandalism and unauthorized use, disturbed traps, and

conflicts between recreational and subsistence users (letters from Miki and Julie Collins, 7/16/00, 7/24/00 and 3/3/01). Introducing new or expanded recreational uses into these areas increases the potential for conflict between consumptive and non-consumptive users. Subsistence trappers may be adversely affected during certain times of the year by displacement of furbearers, and subsistence hunters may be adversely affected during winter hunting seasons by the temporary displacement of wildlife, particularly moose and caribou.

Because of concerns about the declining number of ptarmigan in Wildlife Management Unit 13, which encompasses the east side of the south additions and important subsistence use areas south of Cantwell, hunting bag limits have been reduced and the season shortened to close on March 31. One of the reasons for shortening the season from April 30 to March 31 was to avoid hunting and activity during the nesting period in April. Increased recreation, particularly snowmobile use, could have a negative effect by causing displacement of ptarmigan populations during their sensitive breeding and nesting period (Denali Subsistence Resource Commission Meeting Minutes, August 9, 1996 and June 28, 1993).

Several local subsistence trappers from the Cantwell area have stated they curtail their trapping efforts in mid winter because of displacement of furbearers as a result of increasing recreational snowmobiling in the Broad Pass area. Increasing recreation, particularly snowmobile use, would likely displace furbearers even further than they currently are from the Cantwell region (Denali Subsistence Resource Commission Meeting Minutes, April 29, 1996).

Increased recreation, particularly snowmobile use, would likely further displace moose from park lands during late winter and from critical wintering areas on park lands in the Windy and Cantwell Creek drainages. This could significantly increase the stress and nutritional demands upon moose and result in some moose mortality, depending on the environmental conditions and the body reserves of moose in a given year.

The Cantwell group of the Nelchina Caribou herd uses areas within the former Mount McKinley National Park and the ANILCA park additions of Windy Creek, Cantwell Creek, and the Bull River drainages during late winter. These areas along the Alaska Range in the vicinity of Windy Pass provide important winter habitat for caribou because snow depths associated with the pass area are less than in other areas. Increased recreation, particularly snowmobile use, would likely cause further displacement of caribou from both old and new park lands. This could result in Cantwell subsistence hunters having to travel farther to harvest Nelchina caribou during the winter caribou season.

Due to the potential for high levels of widespread recreation that could create unfavorable conditions for wildlife (i.e. presence and noise from visitors would scare wildlife), alternative A would have major impacts on distribution of subsistence resources.

Alternative B

Redistribution of wildlife populations is not expected under alternative B because of the emphasis on protecting wildlife habitat and highly dispersed recreation. Snowmobile use in the park additions and preserve would be limited until Congress acts on wilderness designation. This would result in an immediate decrease in the recreational snowmobile use mentioned under alternative A. The impacts under alternative A would therefore not occur. Subsistence opportunities would likely improve as compared to current conditions because visitor use, particularly motorized use, would be restricted, so wildlife would be less likely to be frightened and move elsewhere.

Alternative C

Alternative C provides for dispersed recreational uses, including some motorized access, in parts of the park additions and preserve that are used for subsistence. Because recreational uses would be managed for dispersed use and low encounter rates in most of the park additions and preserve, only minimal redistribution of populations would occur. Areas affected would be the Broad Pass area from Cantwell Creek to the Bull River; the Lower Ruth, Upper Tokositna, and Yentna Valley areas; and along the Stampede corridor. Of these areas, only the first (Cantwell Creek to the Bull River) is a common subsistence use area. Minor impacts that would result would be attributable to

snowmobile use, airplane access, and other increasing recreational uses that could scare wildlife and cause them to relocate.

Alternative D

Impacts on subsistence uses from alternative D are expected to be similar to those outlined for alternative C. While higher levels of use would generally occur under alternative D, much of this would be outside the areas commonly used for subsistence. Since recreation would be dispersed and occur at fairly low levels, except at access points and snowmobile corridors, there would be only a slight chance that increased levels of recreation would interfere with subsistence uses. Some impact could occur as a result of snowmobile use in the Bull River (Unit 70), Lower Ruth (Unit 75), and Upper Tokositna (Unit 79) areas, and along the Stampede corridor, where corridors would be established for recreation. The impact is expected to be minor to moderate because higher use would occur only along corridors and the park would manage for desired conditions set through management area zoning.

Redistribution of wildlife could also occur as a result of expanding the hunting guide area in the southwest preserve. Human presence, aircraft used to access the area, and gunshots may frighten wildlife, causing animals to relocate.

Alternative E

There would be considerable potential for redistribution of resources under alternative E because of continued increases in recreational activities in important subsistence use areas. Redistribution of wildlife populations would result from greater levels of motorized use, including snowmobile use, motorboats, and airplane landings. The Broad Pass area south of Cantwell, the Stampede corridor, and the Tokositna and Lower Ruth areas would be particularly affected as increases in snowmobile use would likely frighten animals and cause them to relocate. Potential adverse impacts on wildlife most likely would occur during mid-to-late winter, when wildlife is likely to be in a nutritionally-stressed condition.

Redistribution of wildlife could also occur as a result of expanding the hunting guide areas in the southwest and northwest preserve. Human presence, aircraft used to access the area, and gunshots may frighten wildlife, causing animals to relocate.

Subsistence users in the Cantwell area have expressed concern about increasing snowmobile use in the Broad Pass area, as noted above. Subsistence users in the northwest preserve and adjacent park additions have also expressed concerns about motorized use. Additional recreational use involving snowmobiles and motorboats in subsistence use areas, such as along Birch Creek, could result in displacement of furbeareres and moose, cabin vandalism and unauthorized use, disturbed traps, and conflicts between recreational and subsistence users (letter from Miki and Julie Collins, 7/24/00). Introducing new or expanded recreational uses into these areas increases the potential for conflict between consumptive and non-consumptive users. Subsistence trappers may be adversely affected during certain times of the year by displacement of furbearers, and subsistence hunters may be adversely affected during winter hunting seasons by the temporary displacement of wildlife, particularly moose and caribou. This could result in less wildlife being locally available in the park additions and preserve, leading to the need for local subsistence users to travel farther to locate and harvest subsistence resources.

Because of concerns about the declining number of ptarmigan in Wildlife Management Unit 13, which encompasses the east side of the south additions and important subsistence use areas south of Cantwell, hunting bag limits have been reduced and the season shortened to close on March 31. One of the reasons for shortening the season from April 30 to March 31 was to avoid hunting and activity during the nesting period in April. Increased recreation, particularly snowmobile use, could have a negative effect by causing displacement of ptarmigan populations during their sensitive breeding and nesting period (Denali Subsistence Resource Commission Meeting Minutes, August 9, 1996 and June 28, 1993).

Several local subsistence trappers from the Cantwell area have stated they curtail their trapping efforts in mid winter because of displacement of furbearers as a result of increasing recreational snowmobiling in the Broad Pass area. Increasing recreation, particularly snowmobile use, would

likely displace furbearers even further than they currently are from the Cantwell region (Denali Subsistence Resource Commission Meeting Minutes, April 29, 1996).

Increased recreation, particularly snowmobile use, would likely further displace moose from park lands during late winter and from critical wintering areas on park lands in the Windy and Cantwell Creek drainages. This could significantly increase the stress and nutritional demands upon moose and result in some moose mortality, depending on the environmental conditions and the body reserves of moose in a given year.

The Cantwell group of the Nelchina Caribou herd uses areas within the former Mount McKinley National Park and the ANILCA park additions of Windy Creek, Cantwell Creek, and the Bull River drainages during late winter. These areas along the Alaska Range, in the vicinity of Windy Pass, provide important winter habitat for caribou because snow depths associated with the pass area are less than in other areas. Increased recreation, particularly snowmobile use, would likely cause further displacement of caribou from both old and new park lands. This could result in Cantwell subsistence hunters having to travel farther to harvest Nelchina caribou during the winter caribou season.

Due to the potential for high levels of widespread recreation that could create unfavorable conditions for wildlife (i.e. presence and noise from visitors would scare wildlife), Alternative E would have major impacts on distribution of subsistence resources.

(c) Habitat Loss:

None of the alternatives would result in significant habitat loss. Alternative E would result in the greatest habitat loss. Proposed facilities in alternative E include some trails and campsites on the south side of the park additions and temporary facilities to support winter recreation. These facilities would result in only minor or temporary habitat loss.

2. Restriction of Access:

Access for subsistence uses on the ANILCA park and preserve additions is granted pursuant to Sections 811(a)(b) and 1110(a). Section 811(b) of ANILCA states that "rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands." Section 1110(a) of ANILCA authorizes the use of snowmachines for traditional activities during periods of adequate snow cover.

None of the alternatives would restrict access for subsistence. When limits for overnight use or day use would take effect, they would not interfere with subsistence uses. Proposed registration requirements in alternatives B, C, D, and E would be designed to count and track the level of use and would not disrupt subsistence uses. Subsistence users would be registered automatically by meeting eligibility requirements.

3. Increase in Competition:

Alternative A

Improved access to the preserve areas could eventually result in additional hunting activity and competition for wildlife resources. For example, Lake Minchumina area subsistence users have expressed concerns that unrestricted hunting in the northwest preserve, especially along the Muddy River, would deplete moose populations and prevent subsistence hunters from obtaining meat (letter from Miki and Julie Collins, 7/24/00). Although there is less subsistence use in the southwest preserve, the same effect could occur in that area.

The park additions and preserve are open to both subsistence and non-subsistence fishing. Subsistence use of fisheries is generally infrequent except in the northwest preserve. National Park Service regulations and provisions of the Alaska National Interest Lands Conservation Act mandate that if and when it is necessary to restrict the taking of fish, subsistence users are the priority consumptive users on federal public lands. They would be given preference on such lands over other consumptive

uses (ANILCA, Section 802(2)). Continued implementation of the ANILCA provisions should mitigate any increased competition from resource users other than eligible subsistence users.

Increased recreational use in the park additions and preserve, especially snowmobile use, leads to more frequent user conflicts (letter from Russ Wilson, 12/28/99; letter from Miki and Julie Collins, 7/24/00). Conflict is likely in areas where recreational use is rapidly increasing, such as south of Cantwell. Higher levels of recreational use have the potential to displace local wildlife resources farther from common access corridors and into the Old Park, where these resources would be out of reach of subsistence users. In other places, such as in the northwest preserve, increased recreational use over time, particularly snowmobile and motorboat use, could result in less wildlife being locally available, so subsistence users would have to travel farther to locate and harvest subsistence resources. To prevent any restriction to subsistence resources due to increased recreational use in the park additions and preserve (especially along common access corridors), the National Park Service would take a reactionary approach that may result in emergency closures to recreation.

Increased use and access near subsistence traplines near Lake Minchumina encourage snowmobilers and other travelers from the Kantishna area and the road system to use subsistence trapline routes. Every year the trapline is open, additional users follow it into the park. Subsistence users find it necessary to patrol their cabins to make sure recreational users are not using them illegally, and this requires additional time away from subsistence activities. Additional trails made from recreational users can confuse the dog teams of the subsistence users. To avoid conflicts with recreational users, subsistence users have altered their trapping schedule by pulling sets early. Subsistence users have stated that rapid increases in numbers of people cause considerable concern about their way of life and connection to a pristine environment being threatened (letter from Collins, 6/2/00).

Alternatives B and C

None of the proposals in alternatives B and C are expected to result in increased competition for subsistence resources. Recreational snowmobile use in the Broad Pass area, for example, could be expected to decrease significantly in alternative B, resulting in far fewer conflicts with subsistence uses.

Alternative D

Increases in recreation and facilitated access would occur throughout the park; however, many of the increases (for example, airplane landings in the Ruth Amphitheater and at Base Camp) would occur in areas not used for subsistence. Management zoning would allow the park to manage for desired conditions in areas used for subsistence.

Minor competition would occur in the southwest preserve as the hunting guide area would be expanded.

Alternative E

As in alternative A, improved access to the preserve areas over time could result in additional hunting activity and competition for wildlife resources. Alternative E differs from alternative A in that recreational access would be managed through registration and permitting requirements. However, more hunting may occur in the southwest and northwest preserve since there would be an additional guiding company in each. The potential for increased competition would likely be about the same as under alternative A.

As in alternative A, to prevent any restriction of access to subsistence resources due to increased recreational use in the park additions and preserve (especially along common access corridors), the National Park Service would take a reactionary approach that may result in emergency closures to recreation. However, because of provisions for managing recreational use through registration and permitting, the potential for restrictions to subsistence access could be expected to be minor or local.

VI. Availability of Other Lands and Alternatives to the Proposed Action

The backcountry management plan and general management plan amendment includes all areas within the park additions and preserve that are open to subsistence uses. Therefore, there are no other lands that can be substituted in the proposed action.

VII. Alternatives Considered

The backcountry management plan includes a full range of alternatives with proposals for different levels of recreational use and access improvements. This range of alternatives includes some alternatives in which impacts on subsistence uses would be avoided (see Findings below).

VIII. Findings

The above evaluations demonstrate that the National Park Service would have to take reactionary measures, such as closing areas to recreation, in order to prevent a significant restriction of subsistence resources as reasonably foreseeable from alternative A (no action alternative). There would be no significant restriction from alternatives B, C, or D. The National Park Service may have to take reactionary measures, such as closing areas to recreation, in order to prevent a significant restriction of subsistence resources as reasonably foreseeable from alternative E.

Continuing current management direction under alternative A would result in rapidly increasing recreational use in parts of Denali National Park and Preserve, including in important subsistence use areas. The main impact from recreational activities, such as snowmobile use and motorboat use, would be redistribution of wildlife resources available to subsistence users and competition for resources. This impact could be expected to increase over time as recreational use increases. There are no provisions in current management plans to allocate between recreational and subsistence uses, so increased user conflicts could be expected at some locations.

The Broad Pass area southwest of Cantwell is an important subsistence use area as well as a popular destination for recreational snowmobile use during the winter. The Subsistence Resource Commission has documented concerns about restrictions on subsistence uses because of rapidly increasing recreational uses. Other subsistence use areas of concern include the Stampede corridor and the northwest preserve. The northwest preserve could be affected by increasing snowmobile and motorboat use over time.

Alternative E includes provisions for managing recreational uses through registration and permitting requirements and, therefore, the ability to allocate between recreational and subsistence uses. This could be expected to result in fewer impacts than under alternative A. However, alternative E also includes proposals to increase recreational access throughout much of the park additions and preserve, including important subsistence use areas. This alternative would also expand hunting guide areas in the southwest and northwest preserve; however, the areas would be limited geographically and use would be limited to only certain times of the year to prevent a significant restriction to subsistence resources. In light of additional access and activity proposed under this alternative, the National Park Service may have to take management action in order to prevent a significant restriction to subsistence resources throughout the life of the backcountry management plan (the next 15-20 years).

For subsistence purposes, alternative B is recommended as the preferred management option considered in the environmental impact statement because it would have the least overall impacts to subsistence resources and subsistence users.

While alternative D (preferred alternative) is not recommended as the preferred management option for subsistence, this alternative would not cause a significant restriction to subsistence resources. Widespread recreation has the potential to create conflicts with subsistence due to increased competition and redistribution of resources; however, management zoning under this alternative protects subsistence resources by allowing for managed growth and lower levels of use in areas used for subsistence. Alternative D would not restrict access for subsistence. When limits for overnight use or day use would take effect, they would not interfere with subsistence uses. Proposed registration requirements would be designed to count and track the level of use and would not disrupt subsistence uses. Subsistence users would be registered automatically by meeting eligibility requirements.